

# COLEMAN

In re Application of:	\$	
	\$	Group Art Unit: Not
Hallenstål et al.	\$	Assigned
	\$	
Serial No.: Not Assigned	\$	Examiner: Not Assigned
	\$	
Filed: May 25, 2001	\$	
(herewith)		

Box PATENT APPLICATION  
Commissioner for Patents  
Washington, D.C. 20231

Dear Commissioner for Patents:

Prior to a first Office Action on the above-referenced Application for Patent, please amend the Application as follows:

IN THE ABSTRACT

Please replace the current Abstract with the enclosed substitute Abstract on a separate sheet numbered Page 27.

The Abstract has been amended as indicated below:

ATM is used as a transport and switching mechanism in a hybrid STM/ATM network [(20),] while the signaling remains normal narrowband signaling. The narrowband signaling is transported on permanent paths over ATM connections, and the narrowband speech channels are transported on ATM and switched on a "Per call basis" (on-demand) through an ATM switch. [The hybrid STM/ATM network has an access node [(22)] which services narrowband terminals and which generates a signaling message in connection with call setup.] A translator [(50)] formats [the first] a call-setup-related signaling message into ATM cells so that the [first] signaling message can be routed through an ATM switch [(40)]

to a circuit switched (STM) node [(30)]. The circuit switched node (PSTN/ISDN) sets up a physical connection for the call and generates a further signaling message [for the call, the further signaling message pertaining] therefor that relates to the physical connection. The ATM switch routes an ATM cell-formatted version of the further signaling message to another ATM switch over an ATM physical interface [(41)]. Thus, the ATM switch switches both [narrow band] narrowband traffic and signaling for the call over the ATM physical interface.

U.S. Patent Application  
Serial No.: Not Assigned  
Dkt. No.: 27943-00411USC1

IN THE TITLE

Please replace the current title ("NARROWBAND APPLICATIONS USING ATM SWITCHING AND TRANSPORT") with the following new title:

--COMBINING NARROWBAND APPLICATIONS WITH BROADBAND TRANSPORT--.

IN THE WRITTEN DESCRIPTION

Please insert the following paragraph at Page 1 between the original title ("NARROWBAND APPLICATIONS USING ATM SWITCHING AND TRANSPORT") and the background (e.g., prior to the word "BACKGROUND"):

--This Nonprovisional Application for Patent is a Continuation of U.S. Nonprovisional Application for Patent Serial No. 09/353,135, filed on July 14, 1999.--.

IN THE CLAIMS

Please cancel Claims 1-28, without prejudice to the subject matter thereof.

Please add the following new claims:

1           29. (New)       An arrangement for combining narrowband  
2   and broadband transport mechanisms in a communications  
3   network, comprising:  
4           a first node, said first node configured to provide  
5   call control functions and connection control functions; and  
6           a second node, said second node connected to said  
7   first node by at least one link, said second node configured  
8   to provide connection control functions, said second node  
9   adapted to rely on said first node for call control  
10   functions.

1           30. (New)       The arrangement according to claim 29,  
2    wherein said first node is directly connected to said second  
3    node by the at least one link.

1           31. (New)       The arrangement according to claim 29,  
2    wherein said second node does not provide call control  
3    functions.

1           32. (New)       The arrangement according to claim 29,  
2    wherein said first node includes a synchronous transfer mode  
3    (STM) switch, and said second node include an asynchronous  
4    transfer mode (ATM) switch.

1           33. (New)       The arrangement according to claim 29,  
2    wherein said first node and said second node function  
3    together as a single logical node within the communications  
4    network.

1           34. (New)       The arrangement according to claim 33,  
2    wherein the single logical node comprises a hybrid switch.

1           35. (New)       The arrangement according to claim 29,  
2    wherein said first node is further connected to a time  
3    division multiplexed (TDM) network.

1           36. (New)       The arrangement according to claim 29,  
2    wherein said second node is further connected to a time  
3    division multiplexed (TDM) network and an asynchronous  
4    transfer mode (ATM) network.

1           37. (New)       The arrangement according to claim 29,  
2    wherein call control functions comprise switching  
3    intelligence of a telecommunications node, and connection  
4    control functions comprise switching fabric of a  
5    telecommunications node.



1           38. (New)       A method for combining narrowband and  
2       broadband transport mechanisms in a communications network,  
3       comprising the steps of:

4               providing a first node having call control  
5       functionality and connection control functionality;

6               providing a second node having connection control  
7       functionality;

8               connecting the first node to the second node; and

9               sharing, by the first node, the call control  
10      functionality with the second node.

1           39. (New)       The method according to claim 38, further  
2       comprising the step of:

3               transmitting, by the second node, incoming  
4       signaling information related to an incoming call to the  
5       first node.

1           40. (New)       The method according to claim 39, further  
2       comprising the steps of:

3               receiving, by the first node, the incoming  
4       signaling information related to the incoming call from the  
5       second node;

6               executing, by the first node, call control  
7       functionality with respect to the incoming signaling  
8       information related to the incoming call to produce outgoing  
9       signaling information;

10              sending, by the first node, the outgoing signaling  
11       information to the second node.

1           41. (New)       The method according to claim 40, further  
2       comprising the steps of:

3               receiving, by the second node, the outgoing  
4       signaling information from the first node;

5               switching, by the second node, the incoming call  
6       responsive to the outgoing signaling information to thereby  
7       forward an outgoing call from the second node.

1           42. (New)       A telecommunications system comprising:  
2           a first node, said first node configured to provide  
3       call control functions;  
4           a second node, said second node configured to  
5       provide connection control functions and capable of receiving  
6       telecommunications data, said second node adapted to rely on  
7       said first node for call control functions;  
8           a first link for connecting said first node with  
9       said second node, said first link for transporting signaling  
10      information associated with the received telecommunications  
11      data between said second node and said first node; and  
12           a second link for connecting said first node with  
13      said second node, said second link for transporting the  
14      received telecommunications data between said first node and  
15      said second node.

1           43. (New)       The telecommunications system according  
2 to claim 42, further comprising a third link, said third link  
3 for connecting said first node with said second node, said  
4 third link for transporting call control information from  
5 said first node to said second node for controlling the  
6 received telecommunications data; and wherein said first link  
7 is for transporting the signaling information associated with  
8 the received telecommunications data from said second node  
9 to said first node.

1           44. (New)       The telecommunications system according  
2 to claim 42, wherein said first node is further connected to  
3 an intelligent network (IN) node, and said second node is  
4 further connected to a time division multiplexed (TDM)  
5 network and an asynchronous transfer mode (ATM) network.

1           45. (New)       A method for combining narrowband and  
2       broadband transport mechanisms in a communications network,  
3       comprising the steps of:

4           receiving, at a first node, a communication, the  
5       communication including data information and signaling  
6       information;

7           sending, by the first node, the signaling  
8       information to a second node;

9           processing, by the second node, the signaling  
10      information to produce at least one routing instruction;

11          sending, by the second node, the at least one  
12      routing instruction to the first node; and

13          sending, by the first node, the data information  
14      to the second node responsive to the at least one routing  
15      instruction.

1           46. (New)       The method according to claim 45, further  
2       comprising the step of:

3           forwarding, by the second node, the communication  
4       to another node.

1           47. (New)       The method according to claim 46, wherein  
2   the first node includes a broadband switch, and the second  
3   node includes a narrowband switch; and wherein said step of  
4   forwarding, by the second node, the communication to another  
5   node comprises the step of forwarding, by the second node,  
6   the communication to the another node using a narrowband  
7   transport mechanism; and wherein said step of receiving, at  
8   a first node, a communication comprises the step of  
9   receiving, at the first node, the communication on a  
10   broadband transport mechanism.

1           48. (New)       The method according to claim 45, wherein  
2   said step of sending, by the first node, the signaling  
3   information to a second node comprises the step of sending,  
4   by the first node, the signaling information to the second  
5   node over a first link, and wherein said step of sending, by  
6   the first node, the data information to the second node  
7   responsive to the at least one routing instruction comprises  
8   the step of sending, by the first node, the data information  
9   to the second node over a second link.

1           49. (New)       The method according to claim 45, wherein  
2   the first node includes a broadband switching fabric, and the  
3   second node includes a narrowband switching fabric and a  
4   switching intelligence.

1           50. (New)       The method according to claim 49, wherein  
2   the first node relies on the switching intelligence of the  
3   second node by responding to routing instructions.

1           51. (New)       An arrangement for combining narrowband  
2   and broadband transport mechanisms in a communications  
3   network, comprising:

4               a narrowband component, said narrowband component  
5   including switching intelligence and narrowband switching  
6   fabric, said narrowband component adapted to terminate  
7   incoming sides and outgoing sides of communications;

8               a broadband component, said broadband component  
9   including broadband switching fabric, said broadband  
10   component adapted to terminate at least outgoing sides of  
11   communications; and

12              wherein the arrangement is capable of terminating  
13   an incoming side and an outgoing side of a first  
14   communication at said narrowband component, and the  
15   arrangement is capable of terminating an incoming side of a  
16   second communication at said narrowband component and an  
17   outgoing side of the second communication at said broadband  
18   component.



1           52. (New)       The arrangement according to claim 51,  
2   wherein said broadband component is further adapted to  
3   terminate incoming sides of communications, and the  
4   arrangement is further capable of terminating an incoming  
5   side and an outgoing side of a third communication at said  
6   broadband component.

1           53. (New)       The arrangement according to claim 52,  
2   wherein the third communication is serviced by at least one  
3   telecommunications feature via said narrowband component.

1           54. (New)       The arrangement according to claim 51,  
2   wherein said broadband component relies on the switching  
3   intelligence of said narrowband component.

1           55. (New)       The arrangement according to claim 51,  
2   wherein said narrowband component includes a synchronous  
3   transfer mode (STM) switch, and said broadband component  
4   includes an asynchronous transfer mode (ATM) switch.

1           56. (New)       The arrangement according to claim 51,  
2   further comprising at least one circuit emulator, said at  
3   least one circuit emulator adapted to enable said broadband  
4   component to emulate a circuit with respect to said  
5   narrowband component.

1           57. (New)       The arrangement according to claim 51,  
2   wherein said broadband component is adapted to emulate a  
3   circuit connection for the outgoing side of the second  
4   communication at said broadband component.

1           58. (New)       A method for combining narrowband  
2 applications with broadband transport in a communications  
3 network, comprising:

4           terminating a time division multiplexed (TDM)  
5 inbound side of a first communication at a circuit switch;  
6           switching the first communication by the circuit  
7 switch;

8           terminating a TDM outbound side of the first  
9 communication at the circuit switch;

10          terminating a TDM inbound side of a second  
11 communication at the circuit switch;

12          switching the second communication by the circuit  
13 switch;

14          switching the second communication by a packet  
15 switch; and

16          terminating an asynchronous transfer mode (ATM)  
17 outbound side of the second communication at the packet  
18 switch.

1           59. (New)       The method according to claim 58, further  
2   comprising the steps of:  
3           terminating an ATM inbound side of a third  
4   communication at the packet switch;  
5           switching the third communication by the packet  
6   switch;  
7           switching the third communication by the circuit  
8   switch; and  
9           terminating a TDM outbound side of the third  
10   communication at the circuit switch.

1           60. (New)       The method according to claim 58, further  
2   comprising the steps of:  
3           terminating an ATM inbound side of a third  
4   communication at the packet switch;  
5           switching the third communication by the packet  
6   switch;  
7           switching the third communication by the circuit  
8   switch;  
9           providing a telecommunications service for the  
10   third communication via the circuit switch; and  
11          at least one of the following steps:  
12           terminating an ATM outbound side of the third  
13   communication at the packet switch; and  
14           terminating a TDM outbound side of the third  
15   communication at the circuit switch.

1           61. (New)       The method according to claim 58, further  
2   comprising the steps of:  
3           terminating an ATM inbound side of a third  
4   communication at the packet switch;  
5           switching the third communication by the packet  
6   switch; and  
7           terminating an ATM outbound side of the third  
8   communication at the packet switch.

1           62. (New)       A system for combining narrowband and  
2       broadband transport mechanisms in a communications network,  
3       comprising:

4               a first node, said first node including switching  
5       intelligence;

6               a plurality of second nodes, each second node of  
7       said plurality of second nodes including broadband switching  
8       fabric;

9               an interworking entity, said interworking entity  
10      operatively connectable to said first node and said plurality  
11      of second nodes, said interworking entity adapted to receive  
12      data in a first format from said first node, map the received  
13      data into a second format interpretable by said plurality of  
14      second nodes, and send the mapped data to at least one second  
15      node of said plurality of second nodes; and

16              wherein said interworking entity thereby enables  
17      said plurality of second nodes to be controlled, at least  
18      partially, by the switching intelligence of said first node.

1           63.   (New)       The system according to claim 62, wherein  
2   said first node is comprised of a telecommunications node,  
3   said telecommunications node including narrowband switching  
4   fabric.

1           64.   (New)       The system according to claim 62, wherein  
2   said interworking entity comprises a third node between said  
3   first node and said plurality of second nodes.

1           65.   (New)       The system according to claim 62, wherein  
2   said interworking entity is at least one of part of and co-  
3   located with a second node of said plurality of second nodes.

1           66.   (New)       The system according to claim 62, wherein  
2   said interworking entity is further adapted to emulate an  
3   interface for a synchronous transfer mode (STM)-based node  
4   with respect to said first node.



1           67.   (New)       The system according to claim 62, wherein  
2   said plurality of second nodes comprise at least part of a  
3   broadband network.

1           68.   (New)       The system according to claim 67, wherein  
2   each second node of said plurality of second nodes is adapted  
3   to communicate signaling information and data information  
4   over the broadband network and to convert broadband  
5   information into another media type.

1           69.   (New)       The system according to claim 67, wherein  
2   the mapped data comprises instructions for the at least one  
3   second node to establish a communication path through at  
4   least a portion of the broadband network.

1           70.   (New)       The system according to claim 62, wherein  
2   the received data comprises at least one first network  
3   address, and the mapped data comprises at least one second  
4   network address.

1           71. (New)       The system according to claim 70, wherein  
2   the at least one first network address comprises at least one  
3   trunk connection.

1           72. (New)       The system according to claim 70, wherein  
2   the at least one second network address comprises at least  
3   one asynchronous transfer mode (ATM) identifier.

U.S. Patent Application  
Serial No.: Not Assigned  
Dkt. No.: 27943-00411USC1

REMARKS

A substitute Abstract has been provided in order to comport with the new 150-word limitation requirement of 37 C.F.R. §1.72(b).

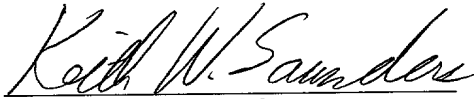
It is noted for the record that these new claims, especially given the pre-examination status of the Application, are not presented for any reason or reasons related to patentability, including those related to statutory requirements for patentability and/or prior art. Instead, these new claims are intended to provide a superior competitive advantage and varying claim scope.

U.S. Patent Application  
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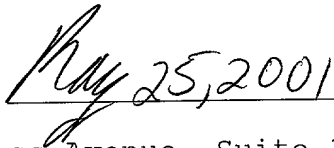
Applicants respectfully request consideration of this  
Application as amended and earnestly solicit an early Notice  
of Allowance for Claims 29-72.

Respectfully submitted,

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**SUBSTITUTE ABSTRACT OF THE DISCLOSURE**

1           ATM is used as a transport and switching mechanism in a hybrid STM/ATM  
2 network while the signaling remains normal narrowband signaling. The narrowband  
3 signaling is transported on permanent paths over ATM connections, and the narrowband  
4 speech channels are transported on ATM and switched on a "Per call basis" (on-demand)  
5 through an ATM switch. A translator formats a call-setup-related signaling message into  
6 ATM cells so that the signaling message can be routed through an ATM switch to a circuit  
7 switched (STM) node. The circuit switched node (PSTN/ISDN) sets up a physical  
8 connection for the call and generates a further signaling message therefor that relates to the  
9 physical connection. The ATM switch routes an ATM cell-formatted version of the further  
10 signaling message to another ATM switch over an ATM physical interface. Thus, the ATM  
11 switch switches both narrowband traffic and signaling for the call over the ATM physical  
12 interface.